



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,746	07/09/2003	James Lynn Haas	62146A	9889
109	7590	07/25/2005	EXAMINER	
THE DOW CHEMICAL COMPANY INTELLECTUAL PROPERTY SECTION P. O. BOX 1967 MIDLAND, MI 48641-1967			YAO, SAMCHUAN CUA	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/615,746	HAAS, JAMES LYNN
	Examiner	Art Unit
	Sam Chuan C. Yao	1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 21 July 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-16 and 20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-16 and 20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 is indefinite, because the phrase "*the composite web's support mat*" does not have a positive antecedent basis. Moreover, it is also unclear which component is the pronoun "its" is referring to. Is the pronoun its referring to the recited 1<sup>st</sup> expandable fiber mat, a support mat, etc.?

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longrigan et al (US 5,837,743) in view of Hoffmann et al (US 4,804,425).

The discussion of the Longrigan et al patent is set forth in a prior office action dated 04-29-05 numbered paragraph 8. While Longrigan et al <sup>disclose</sup> <sup>^</sup> separately supplying a low binder fiber mat and a support mat and forming them into a composite web before a foamable mixture is introduced, Longrigan et al does not

teach using a roll of composite comprising a low binder fiber mat and a support web. However, it would have been obvious in the art to modify the process of Longrigan et al such that a roll of composite supply comprising a low binder fiber mat and a support mat is used, because Hoffman et al teaches supplying a roll of a composite comprising a mesh web and an aluminum facing web for a bottom covering layers and separately supplying a mesh web and an aluminum facing web (i.e. the same materials as component layers in the composite) for a top covering layer in forming a laminated foamed article (col. 5 lines 16-59; figure 1). The teachings of Hoffman et al would have suggested to one in the art that, one could effectively and interchangeably supply a low binder fiber mat and a support mat as a composite in a single feeding roll **or** separately feed them in different feeding rolls to a foam injection station and a laminating station. An incentive for one in the art to supply them as a composite in a single feeding roll would have simply been to obtain a self-evident advantage of simplifying the process (i.e. obviating the need to use multiple feed rollers and the need to synchronize the feeding speed of a low binder fiber mat supply and a support mat supply). With respect to claim 20, it would have been imperative to dispose a composite to a supply roll such that a support mat is located below a low binder fiber mat. Otherwise, a support mat would be facing an injected foamable mixture instead of a low binder fiber mat. For this reason, the limitation in this claim is expected to naturally flow from the modified process of Longrigan et al.

5. Claims 1-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gluck et al (US 4,572,865) in view of Hoffmann et al (US 4,804,425).

Gluck et al, drawn to making a fiber reinforced foam composite, substantially discloses the process recited in these claims. See column 2 line 62 to column 3 line 2, column 3 line 18 to column 4 line 32, column 5 line 67 to column 6 line 43, column 9 lines 8-47, figures 2 and 5-6. Note: Gluck et al teaches using an expandable reinforcing fiber mat suggested in U.S. Patent 4,028,158 issued to Hichen et al. See column 9 lines 14-19.

Gluck et al differs from the recited claims in that, Gluck does not teach using a roll of composite comprising a low binder fiber mat and a support web. However, it would have been obvious in the art to modify the process of Gluck et al such that a roll of composite supply comprising a low binder fiber mat and a support mat is used, because Hoffman et al teaches supplying a roll of a composite comprising a mesh web and an aluminum facing web for a bottom covering layers and separately supplying a mesh web and an aluminum facing web (i.e. the same materials as component layers in the composite) for a top covering layer in forming a laminated foamed article (col. 5 lines 16-59; figure 1). The teachings of Hoffman et al would have suggested to one in the art that, one could effectively and interchangeably supply a low binder fiber mat and a support mat as a composite in a single feeding roll **or** separately feed them in different feeding rolls to a foam injection station and a laminating station. An incentive for one in the art to supply them as a composite in a single feeding roll would have

simply been to obtain a self-evident advantage of simplifying the process (i.e. obviating the need to use multiple feed rollers and the need to synchronize the feeding speed of a low binder fiber mat supply and a support mat supply). With respect to claim 20, it would have been imperative to dispose a composite to a supply roll such that a support mat is located below a low binder fiber mat. Otherwise, a support mat would be facing an injected foamable mixture instead of a low binder fiber mat. For this reason, the limitation in this claim is expected to naturally flow from the modified process of Gluck et al.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 11 and 14 have been considered but are moot in view of the new ground(s) of rejection.

As for Counsel's argument regarding claim 2, Examiner strongly disagrees with Counsel's assertion that a low binder expandable fiber mat in a process of Gluck does not become substantially distributed within the polymeric foam. The presently recited process is indistinguishable from a modified process of Gluck et al, therefore, the recited characteristic of having a foam core with a substantially distributed fibers is expected to naturally flow from the teachings of Gluck et al. As for Counsel's argument that an expanding froth push reinforcing mats to position adjacent to facing mats, it is respectfully submitted that, when a foamable mixture expands of the present invention, it is expected that, to a certain extent, the foam would intrinsically push a low binder fiber mat against a support mat so that the foam penetrates into the low binder fiber mat.

Art Unit: 1733

Note: Where ... the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. **Whether the rejection is based on "inherency" under 35 USC § 102, on prima facie obviousness" under 35 USC § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products.** In re Best, 562 F2d 1252, 1255, 195 USPQ 430, 433-4 (CCPA 1977).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

Scy  
07-22-05